

<b>SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT</b>
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**Preliminary Draft Staff Report**

**Proposed Rule 1315 – Federal New Source Review Tracking System**

**September 9, 2010**

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## EXECUTIVE SUMMARY

AQMD's New Source Review (NSR) program is defined in and established by Regulation XIII – New Source Review. EPA approved AQMD's Regulation XIII into the State Implementation Plan (SIP) in 1996 (Federal Register Volume 61, No. 234, pages 64291-94), establishing that AQMD's NSR requirements and the federal NSR requirements are programmatically equivalent<sup>1</sup>. As part of the preamble to this SIP-approval, EPA stated that AQMD was expected to track both emission increases from major sources not required to provide emissions offsets and emission reductions. The purpose of the tracking was to make annual showings that the aggregate emissions offsets provided by AQMD for emission increases pursuant to AQMD's NSR program for sources exempt from emissions offsets are equal to (or greater than) the aggregate emissions offsets that would be required for such sources pursuant to the federal NSR offset requirements. Emissions offsets are emission reductions created at one location to compensate and balance emission increases at another location. AQMD's NSR program (Rule 1303) requires that emission increases are offset by emission reduction credits (ERCs) provided by the applicant or by allocations from the Priority Reserve pursuant to Rule 1309.1 – Priority Reserve unless they are exempt from offset requirements pursuant to Rule 1304 - Exemptions. The federal new source review program does not provide any offset exemptions for most of the Priority Reserve sources or exemptions listed in Rule 1304. Therefore, major sources subject to Rule 1309.1 or exempt under Rule 1304 are not exempt from the offset requirements of federal NSR. As a result, AQMD maintains offset accounts from which it provides offsets for federal major sources exempt from AQMD's NSR requirements pursuant to Rule 1304 and for federal major sources that receive offsets from the Priority Reserve (Rule 1309.1; principally essential public services). AQMD tracks all disbursements from these offset accounts, as well as all deposits to them. The results of this tracking are aggregated and reported on an annual basis. These annual reports summarize the disbursements from and deposits to AQMD's offset accounts, as well as the running account balances. They also demonstrate programmatic equivalency between AQMD's NSR offset requirements and federal NSR offset requirements contained in the federal Clean Air Act for such sources.

Rule 1315 – Federal New Source Review Tracking System was initially developed and adopted in 2006 to:

- Formalize AQMD's then-existing accounting methodology used to track debits from and credits to AQMD's federal offset accounts and AQMD's equivalency demonstration and reporting procedures;
- Remove certain categories of offset credits, including pre-1990 credits without sufficient currently-available documentation and almost all the BACT discounts of newly issued ERCs, from AQMD's federal offset accounts; and
- Track creditable and eligible offset sources in AQMD's federal offset accounts, which were previously not tracked in the federal tracking system, including surplus emission reductions from minor sources and use of ERCs as emissions offsets beyond federal NSR offset requirements.

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<sup>1</sup> Subsequent to that, in June 2006, EPA SIP-approved AQMD's May 2002 amendments to Rule 1309.1 (Federal Register Volume 71, No. 117, pages 35157-59).

The accounting methodology contained in Rule 1315 as adopted in 2006 was intended to be used to continue to annually demonstrate that emissions increases from sources that are not required to provide ERCs (*i.e.*, sources whose offsets are provided by AQMD) are offset by AQMD's accounts. The rule applied exclusively to AQMD's internal federal offset accounts. Therefore, the accounting methodology and equivalency demonstration requirements did not impact holders of ERCs.

A lawsuit was filed in Superior Court regarding Rules 1309.1 and 1315 after their joint September 2006 amendment (Rule 1309.1) and adoption (Rule 1315) on California Environmental Quality Act (CEQA) grounds. (The amendments to Rule 1309.1 would have allowed power plants on a temporary basis to access to the Priority Reserve upon qualifying and paying mitigation fees.) On August 3, 2007 AQMD re-amended Rule 1309.1 by adding more stringent air quality and health risk requirements for power plants to qualify for access to the Priority Reserve and readopted Rule 1315, rendering the litigation moot. However, a new lawsuit was filed challenging the August 2007 amendment and adoption, again on CEQA grounds. The petitioners prevailed in this case, and the Superior Court of the State of California, County of Los Angeles (Court) issued a writ of mandate ordering AQMD to, *inter alia*, set aside the August 2007 rule adoptions. AQMD repealed Rule 1315 and the August 3, 2007 amendments to Rule 1309.1 in January 2010.

AQMD now proposes to adopt a revised version of Rule 1315. The current Proposed Rule 1315 (PR 1315) is similar to the rule previously adopted in 2006 and 2007 but includes an updated and more detailed Purpose subdivision and several new definitions, introduces the concept of tracking cumulative net emissions increases resulting from implementation of the proposed rule, strengthens the backstop provisions designed to ensure programmatic equivalency with the offset requirements of federal NSR, and adds a new set of backstop provisions that ensure the actual cumulative net increases in potential to emit nonattainment air contaminants resulting from implementation of the proposed rule do not need exceed the anticipated increases that were analyzed in the CEQA review of the proposed rule. The CEQA document (Program Environmental Assessment or PEA) prepared for PR 1315 analyzes direct and indirect impacts that could result from implementation of the PR 1315 to address concerns expressed by the Court. This analysis of impacts includes the direct and indirect impacts of issuing permits relying on the Priority Reserve pursuant to Rule 1309.1 and/or offset exemptions pursuant to Rule 1304 to non-major sources even though the proposed Federal NSR tracking rule would not track such permit actions. This is because AQMD interpreted the Court decision as preventing the issuance of permits relying on the Priority Reserve and/or the offset exemptions of Rule 1304 to either minor or major sources until a federal tracking rule is adopted in compliance with CEQA requirements. SB 827, California Health and Safety Code Section 40440.13, effective January 1, 2010, allows AQMD until May 1, 2012 to issue permits relying on its pre-Rule 1315 tracking system plus minor source reductions and shutdowns. Thus, a direct result of adoption of Proposed Rule 1315 would be the issuance of such permits to both minor and major sources. The AQMD does not propose to re-adopt the amendments to Rule 1309.1 for power plants.

## BACKGROUND

In general, the Federal Clean Air Act (CAA) requires that emission increases of nonattainment air pollutants from new and major modifications of federal major sources be offset with equal or greater quantities of emissions decreases. The specific quantity of emission decreases required to offset a specific increase in federal nonattainment emissions is dependent upon the pollutant's federal nonattainment designation for the air basin in which the increase occurs. In the case of AQMD, the applicable offset ratios are 1.2 pounds of decrease for every 1.0 pounds of increase for VOC and NOx<sup>2</sup> and at least 1.0 pounds of decrease for every 1.0 pounds of increase for all other nonattainment pollutants and their precursors. Some aspects of the offset requirements in AQMD's NSR program (Regulation XIII – New Source Review<sup>3</sup>) are more stringent than the federal offset requirements, while offset exemptions are provided in specific cases. For example, Regulation XIII is more stringent in that it requires offsets for increases from sources that are not federal major sources (federal minor sources) and an offset ratio of 1.2-to-1.0 for all nonattainment pollutants and their precursors (rather than the federally-required 1.0-to-1.0 for pollutants other than VOC and NOx). On the other hand, it includes certain of exemptions from the offset requirement that do not exist in federal NSR. Several of these exemptions, however, are necessitated by the increased stringency of the AQMD NSR program as compared to the federal program.

AQMD submitted its NSR program to California Air Resources Board (CARB) for approval into the SIP. CARB approved AQMD's NSR program as satisfying the applicable requirements without condition and forwarded the rules to the United States Environmental Protection Agency (EPA) for federal approval into the SIP. EPA subsequently approved AQMD's NSR program into the SIP (refer to Table 1 for the specific revisions of each rule in Regulation XIII that EPA has approved). However, EPA's approval in the preamble anticipated that AQMD would implement a tracking system to account for emission decreases of federal nonattainment air contaminants that occur under AQMD's NSR program but that are surplus under federal NSR, as well as emission increases of federal nonattainment pollutants that occur under AQMD's NSR program without individually complying with federal NSR's offset requirements<sup>4</sup>. The purpose of this tracking system referred to in EPA's Technical Support Document is to "continuously show that in the aggregate the District will be able to provide for the necessary offsets required to meet the appropriate statutory offset ratio" (TSD, p. 16). The TSD further states that "EPA determined that the District's proposal to offset all emissions increases with emissions reductions not otherwise required by the Act could be met in the aggregate was consistent with the language

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<sup>2</sup> As precursors to ozone (for which the South Coast Air Basin is designated by EPA as extreme nonattainment), the federally-required offset ratio for VOC and NOx applicable to AQMD would be 1.5-to-1.0, but AQMD requires installation of Best Available Retrofit Control Technology (BARCT, which is equivalent to federal Best Available Control Technology or BACT) on all permitted sources, making AQMD eligible to use a 1.2-to-1.0 offset ratio for VOC and NOx under the federal Clean Air Act (42 U.S.C. §7511a(e)(1) and §7511a(f)(1)).

<sup>3</sup> AQMD's Regional Clean Air Incentives Market (RECLAIM) program includes its own NSR requirements for new and modified sources of NOx and/or SOx subject to RECLAIM in its Rule 2005 – New Source Review for RECLAIM. PR 1315 is not applicable to RECLAIM emissions, so Rule 2005 is outside the scope of this discussion.

<sup>4</sup> United States Environmental Protection Agency, Region IX Air & Toxics Division Technical Support Document for EPA's Notice of Final Rulemaking for the California State Implementation Plan South Coast Air Quality Management District New Source Review by Gerardo C. Rios, October 24, 1996 (Technical Support Document or TSD).

of the Act” (p. 16). Thus, AQMD’s development and maintenance of a tracking system to account for the differences in emissions reductions achieved by and offsets required by the AQMD and federal NSR programs is expected by EPA’s approval of Regulation XIII into the SIP. EPA determined in 1996 that AQMD’s internal offsets “meet or exceed the legal requirements in Section 173(c).”<sup>5</sup> Responses to Comments for Docket No. EPA-R09-OAR-2006-0281, Revisions to the California State Implementation Plan, South Coast Air Quality Management District.

**Table 1**  
**SIP-Approved Revisions of AQMD’s NSR Rules**

Rule	AQMD Adoption Date(s)
213	10/8/1976 (Rescinded by AQMD 6/28/1990)
1300	(Rescinded by AQMD 6/28/1990)
1301	12/7/1995
1302	12/7/1995, 6/13/1997
1303	5/10/1996
1304	6/14/1996
1305	4/6/1984 (Rescinded by AQMD 6/28/1990)
1306	6/14/1996
1307	(Rescinded by AQMD 6/28/1990)
1308	10/5/1979 or 3/7/1980 or 4/4/1980 or 7/11/1980 (Rescinded by AQMD 6/28/1990)
1309	12/7/1995
1309.1	12/7/1995, 5/3/2002
1309.2	(Rescinded by AQMD 2/5/2010)
1310	12/7/1995
1311	10/5/1979 (Rescinded by AQMD 6/28/1990)
1312	(Rescinded by AQMD 6/28/1990)
1313	12/7/1995
1315	(Rescinded by AQMD 1/8/2010)

Since EPA’s October 1996 approval of AQMD’s NSR program, AQMD has implemented an NSR tracking system to demonstrate programmatic equivalence between its NSR program and the offset requirements of the federal program. As a part of this effort, AQMD staff has prepared and presented to the AQMD Governing Board at public meetings a series of reports that track credits and debits from August 1990 through July 2002 and present the remaining balances of credits in AQMD’s federal accounts. These NSR tracking reports go back to the year 1990 because that was the year when fundamental amendments were made to AQMD’s Regulation XIII. A key source of credits in these tracking reports was “orphan shutdowns” of federal major sources. “Orphan shutdowns” refers to shutdowns of sources that did not receive ERCs either because they originally obtained their offsets from AQMD or because they failed to properly claim ERCs. Other credit sources included “negative NSR balances” resulting from permit

<sup>5</sup> Responses to Comments for Docket No. EPA-R09-OAR-2006-0281, Revisions to the California State Implementation Plan, South Coast Air Quality Management District.

actions prior to 1990, and the “BACT discount” currently required by Regulation XIII when banking ERCs. Additionally, the staff report for the original adoption of Rule 1315 in September 2006 included preliminary revised tracking of credits and debits pursuant to the revised tracking system embodied in then-Proposed Rule 1315 from 1990 through July 2004. After Rule 1315 was adopted additional tracking reports finalizing the revised tracking through 2005 as well as tracking the 2006 debits but not 2006 credits<sup>6</sup> were presented to the Governing Board.

In 2002 AQMD adopted an Offset Budget rule (Rule 1309.2 – Offset Budget) as part of AQMD’s NSR program to address some of the shortage problems with ERCs. As adopted, Rule 1309.2 would have made the Offset Budget available as a “bank of last resort” to sources subject to AQMD’s NSR offset requirements but unable to obtain sufficient NO<sub>x</sub>, SO<sub>x</sub>, CO, or PM<sub>10</sub> ERCs to provide as emissions offsets on the open market<sup>7</sup>. Offset credits would have been available to such sources from the Offset Budget provided the sources paid a non-refundable mitigation fee based on the quantity and type of offsets to be obtained from the Offset Budget. As part of the discussions between EPA and AQMD regarding Rule 1309.2, EPA raised some questions related to the credits in AQMD’s offset accounts for use in the Offset Budget. Among the key issues raised by EPA were the following:

- availability of pre-1990 emission reductions, particularly availability of existing records associated with such reductions;
- availability of reductions resulting from the BACT discount of newly-banked ERCs, since the discount is presumably also used to satisfy the federal surplus at the time of use discount requirement;
- baseline calculation procedures to assure an “actual” baseline;
- surplus adjustment at time of use for credits in the tracking system; and
- consistency of credit use with assumptions in the SIP.

EPA staff requested that these issues be resolved prior to EPA considering approval of Rule 1309.2 into the SIP. EPA staff also requested that AQMD adopt a rule specifying how the tracking of debits and credits would occur in the future. Therefore, EPA and AQMD staff engaged in a series of discussions to develop a proposed revised NSR tracking system intended to demonstrate continued programmatic equivalency of AQMD’s NSR program with federal NSR requirements and to address EPA’s above-described concerns. AQMD spent several thousand person hours to evaluate the existing NSR tracking system as a part of this effort. Rule 1315 – Federal New Source Review Tracking System, as adopted September 8, 2006, was the result of this process.

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<sup>6</sup> The Court decision enjoining AQMD from implementing Rule 1315 was issued after the report describing 2006 credits was presented to the Governing Board’s Stationary Source Committee but before it was presented to the Governing Board itself. Therefore, that report was never finalized.

<sup>7</sup> Rule 1309.2 included a provision specifying that the Offset Budget would be established by the Executive Officer upon approval of the rule by CARB and EPA. EPA never approved the rule and AQMD’s Governing Board repealed the rule in February 2010. Therefore, the Offset Budget was never implemented and no permits were ever issued relying upon the Offset Budget.



AQMD's Governing Board adopted Rule 1315 along with amendments to Rule 1309.1 – Priority Reserve (creating a mechanism for proposed electrical generating facilities (EGFs) to temporarily obtain emissions offsets for specified nonattainment pollutants from the Priority Reserve) on September 8, 2006. The California Environmental Quality Act (CEQA) documents prepared for the adoption of Rule 1315 and the amendment of Rule 1309.1 determined that both rule actions were exempt from CEQA<sup>8</sup>. A group of environmental organizations that had opposed these rule actions during the Public Hearing filed suit against AQMD regarding these rules on CEQA grounds, including disputing that either rulemaking was exempt from CEQA. Rather than wait for the suit to be finally decided in court, possibly resulting in the rule actions being vacated and the resulting need to readopt Rule 1315 and the amendments to Rule 1309.1 after many months of delay, AQMD initiated the process of readopting Rule 1315 and re-amending Rule 1309.1 with full CEQA documents while the litigation was pending. The case was therefore dismissed as moot. The Governing Board readopted Rule 1315 and re-amended Rule 1309.1 on August 3, 2007. The September 2006 and August 2007 adoptions of Rule 1315 were identical; the August 2007 amendments to Rule 1309.1 differed from the September 2006 amendments in that they included additional environmental requirements based on the location of the project in environmental justice or more polluted areas. The same environmental organizations considered the CEQA documents for the August 3, 2007 re-adoption and re-amendment inadequate and again filed suit and prevailed in the Superior Court of the State of California, County of Los Angeles (Court), resulting in a July 28, 2008 Court decision vacating the August 2007 Governing Board action adopting Rule 1315 and amending Rule 1309.1 ("the Project") and enjoining AQMD from "undertaking any action to further implement these rules pending CEQA compliance." The Court subsequently issued a writ of mandate on November 3, 2008 ordering AQMD to, *inter alia*, set aside the Project, "including the certification of the Final Program Environmental Assessment." AQMD does not intend to readopt the amendments to Rule 1309.1 for power plants, but is proceeding with a rulemaking effort to replace the set aside version of Rule 1315 with a different version (PR 1315) supported by a new environmental assessment that analyzes all of the potential direct and indirect impacts to address concerns expressed by the Court.

During the interval between the September 8, 2006 adoption of Rule 1315 and the July 28, 2008 Court decision ordering it to be vacated, AQMD implemented Rule 1315 to demonstrate ongoing equivalency between AQMD's NSR program and federal NSR requirements. Therefore, a Status Report on Regulation XIII – New Source Review was presented to the Governing Board on February 2, 2007 and a second status report was presented on September 7, 2007. The first of these reports demonstrated continued equivalency for the August 2002 through July 2003 and August 2003 through July 2004 time periods; the second report did so for the August 2004 through December 2005 time period. The accounting procedures for demonstrating equivalency between AQMD's NSR program and federal NSR remain consistent between the previously-adopted versions of Rule 1315 and the current PR 1315. Therefore, the NSR tracking presented

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<sup>8</sup> AQMD staff reviewed then-Proposed Rule 1315 and concluded that it did not meet CEQA's definition of "project" and, even if it were determined to be a project, that it was exempt from CEQA pursuant to CEQA Guidelines §15061(b)(3), referred to as the general rule or commonsense exemption. Similarly, staff concluded that the amendments to Rule 1309.1 were exempt because each of the EGF projects which would make use of the amendments would be subject to individual CEQA review with the California Energy Commission as lead agency, making the amendments statutorily exempt from CEQA pursuant to CEQA Guidelines §15271 – Early Activities Related to Thermal Power Plants.

in the staff reports for the September 2006 and August 2007 adoptions of Rule 1315 were consistent with the provisions of the current PR 1315, as were the February and September 2007 status reports on Regulation XIII. As a result, upon adoption of the current PR 1315, the February and September 2007 reports will be consistent with the then newly-adopted Rule 1315 and with the exception of minor adjustments (see Appendix I) no new federal tracking reports for August 2002 through December 2005 will be needed. The balances in AQMD's federal offset accounts as of December 31, 2005 are shown in Table 2.

**Table 2**  
**AQMD's Federal Offset Account Balances as of December 31, 2005**  
**(Tons per Day)**

	VOC	NOx	SOx	CO	PM10
<b>Balance</b>	64.43	23.14	2.14	10.55	11.10

## PROJECT DESCRIPTION

In light of the circumstances described above, AQMD proposes to adopt Rule 1315 – Federal New Source Review Tracking System with the following objectives:

- Maintain AQMD's ability to continue to administer its new source review program for major and minor sources for facility modernization and to accommodate population growth through implementation of Rule 1304 and Rule 1309.1. AQMD's policy objectives include allowing the permitting system to operate in order to: 1) allow facility modernization which will increase efficiency and reduce air pollution, 2) allow facilities to install pollution control equipment, 3) allow emergency equipment to be installed, 4) allow permitting of equipment necessary for essential public services and small emitters, 5) allow operation of portable equipment and other sources determined as a policy matter to be exempt from offsets or eligible for Priority Reserve credits, and 6) take into account environmental and socioeconomic benefits as well as environmental and socioeconomic impacts;
- Memorialize in rule form the accounting procedures AQMD uses to establish equivalency of AQMD's New Source Review program with federal offset requirements, and ensure that valid offsets are projected to be available in AQMD internal offset accounts before a major source relying on such offsets is permitted thus assuring that increases in emissions resulting from such sources are fully offset; and
- Recognize sufficient previously-unused emission reductions that are beyond those required by applicable regulatory requirements in order to demonstrate federal equivalency for major sources that are exempt under Rule 1304 or that obtain credits from the Priority Reserve under Rule 1309.1.

PR 1315 would be used to establish that exempt sources (under Rule 1304) and Priority Reserve sources (under Rule 1309.1) are fully offset to the extent required by federal law by valid

emission reductions from AQMD's internal offset accounts. PR 1315 would achieve this by establishing what types of reductions are eligible to be used to offset emissions. PR 1315 would also allow the use of certain previously unused credits that are eligible to offset emission increases. For example, PR 1315 would recognize emission reductions generated from minor source "orphan shutdowns," which were not previously accounted for in AQMD's NSR tracking system and federal equivalency demonstrations, to offset emission increases from other sources. PR 1315 would also exclude from the applicable equivalency obligation any new or modified permits that are not required to provide offsets under federal law. Furthermore, AQMD is preparing a Program Environmental Assessment for this rule development effort.

## **DISCUSSION OF AQMD'S PROPOSED REVISED NSR TRACKING SYSTEM**

AQMD staff has developed a proposed rule that formalize AQMD's NSR tracking system and includes certain revisions to the procedures used in the tracking system that existed prior to September 2006. The proposed revised procedures include elimination of all pre-1990 credits for which AQMD no longer retains documentation. AQMD has also included additional classes of creditable and eligible offsets in the proposed revised tracking system, including orphan shutdowns and orphan reductions of minor sources, as well as other surplus reductions. As a result of these revisions, and even with the inclusion of the additional offset sources, AQMD's previously-reported 2002 federal offset account balances<sup>9</sup> for all pollutants except for NOx<sup>10</sup> would be reduced, depending on the pollutant, by from 37% to 81%. Several elements of the proposed revisions to AQMD's tracking system contribute to these reductions, as discussed below, but the single element of the proposal with the greatest contribution is the reevaluation of pre-1990 credits and proposed elimination of all offsets for which AQMD no longer retains documentation. As a result of this proposed change, AQMD's pre-1990 credits would be reduced, depending on the pollutant, by from 7% to 92%. The specific amounts of reductions for each pollutant for the pre-1990 and the 2002 offset account balances are shown in Table 3.

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<sup>9</sup> This was the latest NSR Annual Report utilizing the pre-September 6, 2006 tracking procedures.

<sup>10</sup> The 2002 federal NOx balance increased relative to the previously-reported 2002 balance. This increase is the result of both the fact that reevaluation of the pre-1990 balances had only a minor impact on NOx (7 % reduction compared with 56 % to 92 % reductions for the other four pollutants) and the inclusion of additional offset sources into the revised federal tracking system that have always been surplus but previously were not tracked due to the ample supply of offsets in AQMD's federal offset accounts for all five pollutants.

**Table 3**  
**Pre-1990 Credits Deposited in AQMD's Offset Accounts**  
**(Tons per Day)**

	VOC	NOx	SOx	CO	PM10	Overall
Previously-Reported Pre-1990 Credits	92.4	25.8	18.4	34.9	34.5	206.0
Revised Pre-1990 Credits Verified with Records or Validation Procedures	38.46	23.92	8.04	8.45	2.67	81.54
Percent <b>Reduction</b> in Pre-1990 Credits	58%	7%	56%	76%	92%	60%
Previously-Reported 2002 Federal Offset Account Balances	107.65	21.60	18.76	24.09	41.24	213.34
Revised 2002 Federal Offset Account Balances	68.70	28.84	10.72	7.84	7.68	123.78
Percent <b>Reduction</b> in 2002 Federal Offset Account Balances	36%	-34%	43%	67%	81%	42%

The detailed line-by-line adjusted credit balances that result from the proposed modified procedures are shown in Appendix I: *AQMD's NSR Offset Tracking—Updated Federal Running Balances*. The following is a more detailed description of the proposed changes.

## SOURCES OF OFFSETS

AQMD has described in its annual status reports on Regulation XIII a 1990 starting balance for offset accounts based on data available in 1990. While portions of pre-1990 credits were used years ago, EPA staff has requested an accounting of the validity of such offsets to ensure that they were creditable. To that end, EPA staff has raised questions about the availability of records relating to the pre-1990 credits. To address these and other issues raised by EPA, AQMD staff spent several thousand staff hours reviewing and reevaluating all available data for the offsets in AQMD's federal offset accounts, including the pre-1990 credits in their 1990 starting balances. The following is a description of sources of offsets in AQMD's tracking system. The pre-1990 timeframe and the 1990 and beyond timeframe are addressed separately due to differing provisions of AQMD rules applicable to generation of offsets in these time periods.

### Pre-1990 Credits

#### *Pre-1990 Permitting Program*

AQMD had, and continues to have, a robust stationary source permitting program for all sources regardless of potential to emit (including both major and minor sources) in place well before 1990. Key elements of that program are summarized below:

- Permit Rules

Since prior to 1976, the year that AQMD adopted its initial NSR rules, virtually any construction or modification of a source has required the operator to obtain a permit to construct from AQMD (Rule 201 – Permit to Construct). The only exceptions to these permit requirements are, and at all times were, specified in AQMD Rule 219 – Equipment not Requiring a Written Permit Pursuant to Regulation II, which exempts certain equipment from permit requirements due to minimal potential to affect air quality. With the exception of the specific exemptions in Rule 219, there has been no exemption from permit requirements for sources emitting even relatively small amounts of air contaminants; that is, *all* sources with potential to emit or control air contaminants, including all federal minor sources, have been required to obtain permits when constructed or modified unless specifically exempted by Rule 219.

- New Source Review Rules

AQMD adopted its initial New Source Review rules in October 1976, prior to the adoption of the New Source Review requirements into the federal CAA. Originally included in Rule 213 – Standards for Permits to Construct: Air Quality Impact, the NSR rules were moved into a series of rules in Regulation XIII – New Source Review in 1979. The rules required offsetting of emissions increases that exceeded certain thresholds. The thresholds were decreased over time pursuant to rule amendments. For example, for volatile organic compounds and nitrogen oxides, the offset threshold initially was 250 pounds per day, and was reduced by rule amendments during the 1980's to 150 pounds per day, 75 pounds per day, 30 pounds VOC per day and 40 pounds NO<sub>x</sub> per day, and finally down to zero, requiring no net increase in emissions, unless ERCs are provided or specifically exempt from offset requirements pursuant to Regulation XIII.

- NSR Balance

Prior to 1990, in order to implement its offset requirements, AQMD kept a running “NSR balance” for each facility with permitted sources. The NSR balance included an entry for every increase and every decrease in emissions at the facility that resulted from a permit action. The entries in the NSR balance were based on *maximum allowable* emissions, *i.e.* the maximum amount of emissions that a source could emit given its physical capabilities and permit limitations and rule requirements. However, the NSR balance was initially determined for each piece of equipment which had not previously undergone NSR analysis (*i.e.*, pre-NSR equipment) from an *actual* emissions baseline for that equipment. Any subsequent NSR activity for such equipment was conducted on a potential-to-potential basis. Therefore, a pre-NSR source modified under NSR would be subject to NSR on an actual-to-potential basis (*i.e.*, actual pre-modification emissions to potential post-modification emissions)—a very conservative approach.

Prior to 1990, emissions offsets were required when a permit was sought for construction of a new source, or for modification of an existing source, that would cause the sum of increases and decreases at a facility (*i.e.* the NSR balance) to exceed the pre-1990 offset threshold levels in effect at the time of permit issuance.

NSR balance entries had to be quantifiable and enforceable. Such entries only occurred pursuant to permit applications with sufficient substantiating data to ensure quantifiability,

after evaluation by AQMD engineers and review by supervisory staff pursuant to Regulation XIII rules and implementing policies established by the agency, and upon issuance of permits or permit modifications that were enforceable under state law.

AQMD applied substantial resources to implementing these rules. For example, from 1985 through 1989 AQMD's engineering staff that processed permits consisted of between 97 and 175 professional engineers and supervisory and management staff. In sum, at all times including, but not limited to, prior to 1990, AQMD has had a robust air quality permitting system—a system that AQMD believes was qualitatively superior in terms of quantification and reliability to any other NSR permitting system in the nation.

- **Compliance with Federal NSR Requirements**

In addition to being reliable, the above-described pre-1990 AQMD NSR rules fully complied with all federal requirements. Indeed, AQMD's NSR rules were more stringent than required by federal law in the following important respects: (1) offset thresholds were lower than required by federal law and; (2) unlike federal requirements that allowed "bubbling" or netting out of LAER, until the 1990 amendments to the CAA, which prohibited netting out for ozone precursors, AQMD's BACT requirement (equivalent to federal LAER) applied to any emissions increase from an individual piece of equipment; *i.e.*, there was no netting out of LAER; (3) a 1.2-to-1.0 offset ratio was used for all sources and all emittents while federal law required a 1.2-to-1.0 offset ratio for precursors to ozone (*i.e.*, VOC and NO<sub>x</sub>) provided federal BACT is required for all major sources and a 1.0-to-1.0 offset ratio for SO<sub>x</sub>, CO, and PM<sub>10</sub>; and (4) AQMD had a zero BACT threshold (*i.e.*, BACT—federal LAER—was required for all emission increases, no matter how small at all sources, no matter how low the potential to emit). Additionally, EPA SIP-approved AQMD's Rule 201 as amended January 5, 1990, and AQMD's NSR rules as adopted or amended on the dates identified in Table 1, above.

- **Negative Balances**

By 1990, some facilities had negative NSR balances. These negative balances were the result of equipment shutdowns or process changes since October 1976 that resulted in reductions in emissions from one or more sources exceeding any increases at the facility. The majority of negative balances resulted from equipment shutdowns. Like all entries contributing to a facility's NSR balance, negative entries only occurred pursuant to permit actions—*i.e.* either modification of an AQMD permit or shutdown of equipment and inactivation of the associated permit. Negative entries were quantified by AQMD engineers based upon the permitted physical capabilities of the modified or shut down equipment and applicable permit and rule requirements; negative balances resulted when the sum of a facility's positive and negative NSR entries was negative.

*Pre-1990 Accounting as it Existed Prior to September 8, 2006*

AQMD's offset accounts were established with starting balances based on pre-1990 emissions reductions. The primary source of these pre-1990 reductions was a portion of facilities' negative NSR balances that were discounted as specified in the 1990 amendments to Regulation XIII (described below). The 1990 Regulation XIII amendments also directed the Executive Officer to recall all existing pre-1990 ERCs that had resulted from shutdowns, discount them by eighty

percent, and issue new ERCs at twenty percent of their original values. The eighty percent discount of the pre-1990 shutdown ERCs was deposited into AQMD's offset accounts along with the amounts derived from the discount of pre-1990 negative balances (further explanation of the implementation of the 1990 amendments to Regulation XIII is provided with the discussion of AQMD's proposed revisions to its pre-1990 accounting). All of AQMD's annual status reports prepared prior to September 2006 included the starting balances from these sources (discount of pre-1990 negative balances and pre-1990 shutdown ERCs); AQMD has not prior to the initial adoption of Rule 1315 taken credit for any other pre-1990 offset sources, such as the zero BACT threshold, use of ERCs by minor sources, and the additional ERCs provided by major sources for SO<sub>x</sub>, CO, and PM<sub>10</sub> at a ratio of 1.2-to-1.0 compared to 1.0-to-1.0.

### *Proposed Adjustments to Pre-1990 Accounting*

AQMD is now proposing to significantly reduce (by more than 60% overall) its pre-1990 emission offsets balances as they existed prior to September 8, 2006 by continuing to eliminate any present or past use of any offsets for which AQMD presently has no records in its possession so cannot re-verify their validity and to only utilize the portion of the previously-reported pre-1990 emission reductions that was originally validated in 1990 and 1991 and revalidated in 2003 through 2005 as offsets in its tracking system and for which AQMD has all or some records. The emission reductions that underlie those offsets occurred between 20 and 34 years ago, and not all records related to them are available today. In many cases, however, summary data based on previous analyses are available. In addition, AQMD at all relevant times prior to and after 1990 had a sufficiently robust permitting program and record validation procedure to provide a high level of confidence regarding the validated emission reductions for which AQMD proposes to retain pre-1990 credits. This conclusion is supported by the preceding discussion of AQMD's pre-1990 permitting program and the following summary of the 1990 Regulation XIII amendments and their implementation:

- **1990 Regulation XIII Amendments**  
AQMD substantially modified Regulation XIII in 1990. The offset threshold was dropped to zero, although relatively small emitting facilities (*e.g.* less than 30 pounds per day of VOC or 40 pounds per day of NO<sub>x</sub>) were eligible to obtain needed offsets from a new "Community Bank." Under the 1990 amendments, negative balances were to be "verified by the Executive Officer" and discounted by 80%. The rules specified that "upon validation" the remaining 20% was to be issued to the permit holder in the form of an ERC (Rule 1309(a)).
- **Implementation of 1990 Amendments**  
Shortly after adoption of the 1990 amendments to Regulation XIII, AQMD staff drafted a detailed internal guidance document titled "Regulation XIII – New Source Review Guidance Manual" (Guidance Manual) specifying how the amendments would be implemented by AQMD permit processing engineers. The required treatment of negative balances was described in this document. It specified that negative balances would have to be "verified" in accordance with standard procedures established by the Guidance Manual. It also specified that each facility's NSR account would be searched by computer to determine if any "forgivenesses" (*i.e.* negative entries due to prior rule amendments lowering offset thresholds) contributed to the facility's negative balance. The Guidance Manual further provided that NSR balances "shall be recalculated" excluding any forgivenesses since they

were not “real” emission reductions and therefore did not qualify for ERC generation pursuant to Rule 1309(b)(1). The Guidance Manual also specified that any negative particulate matter emissions balances would be converted to PM10 by multiplying the particulate matter emissions by an average factor of 0.5. Finally, the Guidance Manual stated that any facility with a negative balance of 500 pounds per day or greater was to have each negative entry “confirmed by reviewing the application file which resulted in the negative NSR entry.” The vast majority of negative balances at the time (in excess of 80%) were associated with facilities with negative balances exceeding 500 pounds.

In 1991, AQMD’s engineering staff commenced the verification and validation processes described in the Guidance Manual. The result of these processes was a substantial reduction in the amount of the negative balances for some pollutants, even prior to the 80% discount. These reductions were the result of (1) addressing the “forgivenesses,” (2) determinations that some reductions were required by AQMD rules and thus ineligible for ERCs, and (3) in some cases correction of simple data entry errors. Table 3 presents the 80% portion of the 1990 negative balances that were deposited in AQMD’s offset accounts. The larger amount shown for each pollutant is the amount originally deposited as the result of this process in the early 1990s and which has been previously reported as the 1990 starting balance in the annual NSR status reports prior to September 2006. The lower amount is revised based upon recent (2003-2005) re-validation of these numbers by AQMD staff based on records that are still available to address EPA’s comments and consistent with EPA policy guidance that allows use of pre-1990 credits that are explicitly included and quantified as growth in the SIP.

Records for pre-1990 emission credits are from 20 to 34 years old. AQMD staff recently conducted an extensive review of the pre-1990 credits and determined that the types of records available today include printouts of NSR data captured in AQMD’s permitting database at the time of permit issuance and complete engineering files, which include the materials and documentation submitted by the applicant and AQMD’s engineering evaluation.

In the proposed revised NSR tracking system, AQMD is recommending to only use the revised and re-verified pre-1990 credits (as set forth in Table 3). These are pre-1990 credits that can reasonably be concluded to be creditable based on presently available records. However, for the majority of the pre-1990 credits (more than 60% overall), the AQMD at present time no longer has the ability to substantiate the validity of the original reductions based on the available records. Therefore, AQMD is now proposing to continue to adjust by significantly reducing its pre-1990 emission credits as was done in 2006 by eliminating any past or present use of any credits for which AQMD presently does not have the records and can no longer substantiate the validity of such records.

- **Remaining Pre-1990 Credits**

AQMD’s NSR tracking system did not specify the age of credits held in AQMD’s offset accounts before 2006. However, in response to EPA’s comments about the use of pre-1990 credits, staff has completed a “First In/First Out” analysis of its federal offset accounts. The results of this analysis are summarized in Table 4, which show that, as of December 31,



2005, significant portions of the adjusted pre-1990 VOC and SO<sub>x</sub> credits and about one fifth of the pre-1990 NO<sub>x</sub> credits remained in AQMD's federal offset accounts. All of the pre-1990 CO and PM<sub>10</sub> credits were depleted from AQMD's federal offset accounts by 1997<sup>11</sup>. In order to address EPA's comment regarding prolonged use of pre-1990 credits from AQMD's accounts, AQMD proposes to retire all unused pre-1990 credits remaining in its federal offset accounts at the end of the 2004-2005 reporting period as a clean air benefit and not use any pre-1990 credits in its offset accounts post 2005. As explained below, the retired pre-1990 credits will be replaced by newly tracked sources of offsets. As a result of this replacement, any shortfalls occasioned by retiring the pre-1990 credits will be eliminated, which will in turn eliminate the need for the offset tracking authorized by SB 827 or AB 1318 either prospectively or retrospectively.

**Table 4**  
**Pre-1990 Credits Unused and Retired in AQMD's Federal Offset Accounts**  
**December 31, 2005**  
**(Tons per Day)**

	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	Overall
Revised pre-1990 credits verified with records or validation procedures	38.46	23.92	8.04	8.45	2.67	81.5
Unused and retired pre-1990 credits as of December 31, 2005	21.52	4.52	7.42	0	0	33.46
Percent of pre-1990 credits unused and retired	56%	19%	92%	0%	0%	41%

## 1990 and Beyond Credits

### *1990 and Beyond Accounting as it Existed Prior to September 8, 2006*

Due to the high level of available offsets in AQMD's accounts prior to the September 8, 2006 adoption of Rule 1315, AQMD only took credit for some of the qualified sources of emission reductions during the period prior to September 2006. For example, AQMD's federal NSR tracking system took credit for orphan shutdowns from major sources, but not from minor sources during that period. The pre-September 2006 tracking system credited orphan shutdowns to AQMD's federal offset accounts based upon the allowable permitted level of emissions of the shutdown source. It also did not take credit in the federal offset accounts for surplus reductions of SO<sub>x</sub>, CO, or PM<sub>10</sub> provided as ERCs by major sources as a result of the differences between the federal and local offset requirements for these pollutants (local requirement is 1.2-to-1.0

<sup>11</sup> All data for 1991 to 1997 is aggregated, so it is uncertain when in this time period the adjusted pre-1990 CO, and PM<sub>10</sub> credits were depleted from AQMD's federal offset accounts. However, by assuming that these credits were consumed at an approximately constant rate, it is estimated that PM<sub>10</sub> was depleted from AQMD's federal offset accounts in 1994, while CO was depleted from AQMD's federal offset accounts in 1995.

while federal law does not specify an offset ratio in excess of 1.0-to-1.0 for SO<sub>x</sub>, CO, or PM<sub>10</sub>) or for surplus reductions resulting from minor sources providing ERCs as emission offsets as required by local but not federal NSR. The tracking system also did not take credit for AQMD's zero BACT threshold. BACT discounts applied to newly-banked ERCs were credited to AQMD's federal offset accounts prior to 2006. Offsets were debited from AQMD's federal offset accounts at 1.2-to-1.0 for all five pollutants when major sources that were not exempt pursuant to the CAA were permitted using Rule 1304 exemptions or the Priority Reserve. AQMD's portion of the California SIP did not include commitments to make up any shortfall in AQMD's federal offset accounts; it also did not commit to discontinue issuing permits relying on offsets from AQMD's offset accounts if the balances in those accounts are depleted. Additionally, the tracking system did not take credit into the federal offset accounts for surplus reductions resulting from offsets provided in connection with modifications at major sources that do not constitute "major modifications" pursuant to the new NSR Reform Regulations even though federal NSR does not require offsets in such cases.

### *Proposed Adjustments to 1990 and Beyond Accounting*

The proposed changes to the sources of credits to and debits from AQMD's federal offset accounts for the 1990 and beyond time period are summarized below:

- **Pre-1990 Credits**  
In addition to elimination of almost 60% of overall pre-1990 credits (those for which AQMD no longer retains records), AQMD proposes to retire any unused pre-1990 credits remaining in its offset accounts at the end of the 2004-2005 reporting period as an air quality benefit and to not use any pre-1990 credits in its offset accounts post 2005.
- **Orphan Shutdowns of Minor Sources**  
Prior to the September 2006 adoption of Rule 1315, the NSR tracking system only used orphan shutdowns of major sources to fund AQMD's federal offset accounts. However, shutdowns of permitted minor sources also meet the requirements that credits be real, permanent, enforceable, quantifiable, and surplus in the same way as do shutdowns of major sources. ERCs applied for and issued for emission reductions from minor sources are commonly used to fulfill the offset requirements for emission increases at major sources that are not exempt from offset requirements under AQMD's NSR rules. Therefore, although AQMD has not previously used these reductions due to the large balances available in its offset accounts, it is appropriate to include emission reductions from minor source orphan shutdowns as offsets in AQMD's federal offset accounts.

AQMD's Rule 201 requires written authorization from the Executive Officer (*i.e.*, a permit to construct) before a person may build, erect, install, alter or replace any equipment, the use of which may cause the issuance of air contaminants or the use of which may eliminate, reduce or control the issuance of air contaminants. Rule 203 – Permit to Operate similarly prohibits the operation or use of such equipment without a permit issued by the Executive Officer. The only exceptions to these requirements are specifically identified in Rule 219. However, all of the minor sources that AQMD proposes to use as sources of orphan shutdown offsets as described above have been through the permitting process. In fact, such minor sources are subject to the same Regulation IV - Prohibitions, Regulation XI - Source Specific Standards,

and Regulation XIII rule requirements as are major sources. In some cases the operators of these sources go through the necessary steps to quantify and generate ERCs when they experience real, permanent, enforceable, quantifiable, surplus emission reductions (*e.g.*, equipment or facility shutdown or modification). Such ERCs generated by minor sources are fully valid and eligible for use as offsets for major sources. Therefore, in cases where the operators do not go through the steps to generate ERCs from their emission reductions, or are not eligible for ERCs because they originally obtained their offsets from AQMD, it is appropriate for AQMD to treat these orphan shutdowns in the same manner as it does orphan shutdowns at major sources, *i.e.*, to allow such reductions to offset increases from major sources.

- **Major Source Use of SO<sub>x</sub>, CO, and PM<sub>10</sub> ERCs**  
AQMD proposes to include credit for the 20% additional SO<sub>x</sub>, CO, and PM<sub>10</sub> ERCs provided by major sources as emission offsets at a ratio of 1.2-to-1.0 pursuant to Rule 1303 rather than the federally-required 1.0-to-1.0 as a source of offsets to its federal accounts. The 20% above a 1.0-to-1.0 offset ratio is creditable because the federal CAA only requires a 1.2-to-1.0 offset ratio for extreme non-attainment pollutants and their precursors (*i.e.*, VOC and NO<sub>x</sub>); the required offset ratio for SO<sub>x</sub>, CO, and PM<sub>10</sub> pursuant to the CAA and the TSD is “at least 1-to-1” according to EPA.
- **Offset Ratio for Major Sources of SO<sub>x</sub>, CO, and PM<sub>10</sub>**  
The proposed tracking system would provide emissions offsets for major sources of SO<sub>x</sub>, CO, and PM<sub>10</sub> from AQMD’s federal offset accounts at an offset ratio of 1.0-to-1.0. This change is consistent with the CAA, which only requires a 1.2-to-1.0 offset ratio for extreme nonattainment pollutants and their precursors (*i.e.*, VOC and NO<sub>x</sub>, not SO<sub>x</sub>, CO, or PM<sub>10</sub>).
- **ERCs Provided by Minor Sources to Offset Emission Increases**  
The CAA do not require offsets for emission increases from minor sources. Therefore, the third-party (*i.e.*, private market) ERCs that these sources provide to offset their increases pursuant to Rule 1303 would be creditable to AQMD’s federal offset accounts.
- **Surplus Discount at Time of Use**  
AQMD also proposes that offsets in its federal offset accounts that resulted from post-1990 orphan shutdowns or orphan reductions and that, based on a first-in/first-out analysis, are not used in the same timeframe they are banked be subject to a best available retrofit control technology (BARCT) at the time of use adjustment. This would be accomplished based on rule control requirements that become effective each year. Specifically, each year all offsets in AQMD’s federal accounts carried over from the previous year would be discounted by the amount of the percentage reduction in overall permitted emissions<sup>12</sup> projected to be achieved as a result of implementation of control requirements that become effective during the year for the pollutant in question. This analysis would be performed on an aggregate basis each year for offsets carried over from the previous year on a pollutant-by-pollutant basis.

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<sup>12</sup> Permitted emissions data is derived primarily from permitted facilities emitting more than four tons of VOC, NO<sub>x</sub>, SO<sub>x</sub>, or PM per year or more than 100 tons of CO per year.

- Actual Emissions Baseline

AQMD proposes to use an average discount factor to account for the difference between potential and actual emissions. Since 1997, AQMD has used a twenty percent discount to convert potential emissions to estimated actual emissions for purposes of compliance with California requirements for no net increase in emissions of California nonattainment air pollutants. This procedure has been used with concurrence of the California Air Resources Board. The current proposal is to use the same factor for federal NSR tracking purposes. In light of the methodology used to quantify potential emissions (explained in more detail below), staff's engineering judgment indicates that, on average, a twenty percent reduction from potential emissions is a reasonable calculation of actual emissions. Actual emissions for individual sources range from the sources' potential emissions down to less than eighty percent of potential emissions, but eighty percent of potential emissions represents a calculation of aggregate actual emissions. The use of eighty percent of potential emissions as a calculation of actual emissions is well documented in AQMD's annual status reports regarding Regulation XIII and is further supported by "Industrial Production and Capacity Utilization"<sup>13</sup> and "Industrial Production and Capacity Utilization: The 2009 Annual Revision"<sup>14</sup>.

Facilities with potential to emit in excess of the Rule 1304 exemption thresholds (4 tons per year for VOC, NOx, SOx, and PM10 and 29 tons per year for CO), provide ERCs to offset their increases in potential emissions so they have a strong incentive to keep their potential emissions in line with actual emissions at times of high production. Smaller facilities with potential to emit below the exemption thresholds may be inclined to request permits based on potential emissions at the exemption threshold levels because the offsets are provided by AQMD at no cost to the facility. However, AQMD engineers perform a thorough evaluation of each permit application prior to recommending issuance of a permit to construct or a permit to operate. These evaluations include a determination of the actual controlled emission rate (based on source test results, VOC content of coatings, sulfur content of fuel, or potential toxics emissions, for example) or expected actual controlled emission rate (based on established emission factors or manufacturers' guarantees, for example). This data is then combined with the maximum anticipated production rate to determine the equipment's potential to emit. Note that the maximum production rate used in these calculations is based on what is reasonably expected for the facility and source in question during periods of high production and is not based on either "24-7" operations (except for those facilities that actually do operate in such a manner) or an artificially highest permissible emission level for each source. In addition, although these sources are not required to provide emission offsets, they are still subject to AQMD's toxics NSR rules, and as such are discouraged from artificially raising their potential to emit or permitted emissions since to do so would increase potential toxic emissions. Therefore, actual emissions are not expected to be considerably different than potential emissions, and 80% of potential emissions provides a reasonable calculation of actual emissions. This conclusion is further supported by potential to emit data for facilities at or below the exemption thresholds. Table 5 shows that there are far more

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<sup>13</sup> Federal Reserve Statistical Release G.17, March 27, 2009, [http://www.federalreserve.gov/releases/g17/cap\\_notes.htm](http://www.federalreserve.gov/releases/g17/cap_notes.htm).

<sup>14</sup> Anne Hall, Federal Reserve Board, Division of Research and Statistics, August 2009, <http://www.federalreserve.gov/pubs/bulletin/2009/pdf/Industrial09.pdf>.

facilities with potentials to emit below the exemption thresholds than at the exemption thresholds.

**Table 5**  
**Ratio of Numbers of Facilities with Potential to Emit (PTE) Below Exemptions**  
**Thresholds to Numbers of Facilities with PTE at Exemption Thresholds**

Pollutant	Facility Count			Ratio (Below Threshold: At Threshold)
	PTE Range A <sup>1</sup>	PTE Range B <sup>2</sup>	PTE C <sup>3</sup>	
VOC	4,583	2,228	2,237	3:1
NOx	4,218	560	25	191:1
SOx	480	99	3	193:1
CO	2,719	219	0	Undefined:1
PM10	2,163	454	18	144:1

<sup>1</sup> PTE Range A is greater than zero but less than 2 tons per year for VOC, NOx, SOx, and PM10 and is greater than zero but less than 15 tons per year for CO.

<sup>2</sup> PTE Range B is greater than or equal to two but less than four tons per year for VOC, NOx, SOx, and PM10 and is greater than or equal to 15 but less than 29 tons per year for CO.

<sup>3</sup> PTE C is four tons per year for VOC, NOx, SOx, and PM10 and is 29 tons per year for CO.

The above table indicates that it is likely that few facilities obtain a potential to emit (permit limit) substantially higher than their actual emissions, even though in principle they could without cost obtain permits to emit up to four tons per year.

■ Discounting Newly-Banked ERCs to BACT

Rule 1309 – Emission Reduction Credits and Short Term Credits specifies that the amount of emission reductions banked as a new ERC not be “greater than the equipment would have achieved if operating with current Best Available Control Technology (BACT).” Similarly, Rule 1306 – Emission Calculations specifies that “emission decreases from sources which are modified or removed from service shall be the actual emissions reduced to the amount which would be actual if current BACT were applied” in its presentation of the procedure to be used for quantifying emission reductions used to generate ERCs. No similar requirement exists in the federal CAA. Therefore, the amount of any otherwise qualifying emission reductions not issued as an ERC due to implementation of these provisions is surplus. However, EPA has indicated that AQMD uses the BACT discount at time of generation in lieu of the federally-required BARCT discount at time of use and, therefore, AQMD cannot take credit into its federal offset accounts for the BACT discount of ERCs. In order to address EPA’s concerns, AQMD proposes to retroactively remove all offsets generated from BACT discount of ERCs from its offset accounts, except such offsets that AQMD has demonstrated (or demonstrates in the future) exceed the discount that would be required by approved SIP rules and rules scheduled to be approved by AQMD in the following year’s rule cycle. AQMD would notify EPA and obtain EPA’s concurrence when making this alternative discount. Specifically, AQMD has identified 6.67 tons of CO per day of BACT

discount of ERC credits from 1991<sup>15</sup> in AQMD's federal CO offset account that are beyond approved SIP rules and rules scheduled to be approved by AQMD in the following year's rule cycle. AQMD, therefore, proposes to retain these offsets (which were used in the early 1990s).

- **SIP Inventory and Growth Assumptions**

To date, AQMD has incorporated a sufficient portion of available tracking system offsets into the Air Quality Management Plan (AQMP or Plan) at the time of Plan revision to assure that the growth assumptions in the Plan are consistent with NSR offsets used. In order to assure that the actual impacts of the proposed rule do not exceed the impacts analyzed in the PEA, PR 1315 includes provisions directing the Executive Officer to track cumulative net emissions increases by pollutant and to discontinue issuing permits to construct and permits to operate issued to major and minor sources that rely on new use of offsets from the internal accounts resulting from the use of Rule 1304 exemptions or Priority Reserve offsets for any pollutant with a cumulative net emissions increase that exceeds cap set forth in the rule, which is based on the stationary source growth assumption for that pollutant in the SIP.

- **Other Potential Credits**

AQMD does not propose to take any credits for surplus reductions such as application of LAER in excess of federal requirements to any increase in emissions at a major stationary source for non-ozone precursors such as SO<sub>x</sub>, CO and PM<sub>10</sub> or the zero BACT threshold. AQMD understands that when and if it wants to use such credits it will be necessary to hold further discussions with EPA and CARB. AQMD is also not presently proposing to take any credits for not having to deduct emission increases resulting from modifications at major sources that do not constitute major modifications pursuant to the NSR Reform Regulations at this time. However, AQMD would like to be able in the future to use such provisions if a project can be demonstrated to not be subject to NSR since it is not a "federal major modification" under NSR reform. Such an approach to credit generation would be subject to future discussion with and approval by EPA.

## **Summary**

The proposed revised NSR tracking system establishes a very conservative accounting methodology for demonstrating equivalency with federal NSR offset requirements. It also establishes new sources of emissions offsets for inclusion in AQMD's offset accounts. As indicated earlier and shown in Tables 3 and 6, it includes reducing AQMD's previously-reported

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<sup>15</sup> The 6.67 tons of CO per day that AQMD has claimed as BACT discount credits which were beyond approved SIP rules and rules scheduled for the following year's rule cycle at the time of use resulted from the shutdown of internal combustion engines (ICEs). In particular, Southern California Edison (SCE) arranged for various operators to remove their ICEs from service in 1991 as a means of mitigating the then-proposed merger between SCE and San Diego Gas and Electric. However, the PUC denied the merger request, so SCE applied for ERCs for the shutdown engines. According to the first in/first out analysis on the resulting BACT discount CO credits, the credits were completely used by the 1997-98 reporting period. The rule limit for CO emissions from ICEs was 2,000 ppm during the 1991 through 1998 timeframe and all of the subject ICEs were in compliance with this limit prior to being removed from service. BACT for CO emissions from ICEs was 250 ppm during the same timeframe. Furthermore, there were not only no approved SIP rules and no rules scheduled for adoption in the following year's rule cycle, but there also were no control measures in AQMD's Air Quality Management Plan seeking CO emission reductions from ICEs during that timeframe. Therefore, the 1991 BACT discount of the resulting ERCs was available for credit to AQMD's offset accounts at the time of use (1998 and earlier).

pre-1990 credits from a 7% reduction in NO<sub>x</sub> to a 92% reduction in PM<sub>10</sub> and would change the previously-reported federal 2002 NSR offset accounts from a 34% increase in NO<sub>x</sub> credits to an 81% reduction in PM<sub>10</sub> credits. The overall impact on the federal offset accounts of the proposed revised NSR tracking system is summarized in Table 6 for both the 1990 starting balances and the July 2002 running balances. Table 6 also presents the federal offset account balances at the end of the 2002-2003, 2003-2004, 2004-2005, 2006, 2007, and 2008 reporting periods as calculated consistent with the proposed revised NSR tracking system procedures. A detailed accounting of federal tracking, including debits, the various categories of credits, BARCT adjustments, and balances of pre-1990 and post 1990 offsets each reporting period is presented in Appendix A.

**Table 6**  
**Summary of Federal Offsets Accounts**

*Table 6 will be available no later than November 3, 2010 or 30 days before the Board Meeting at which the Proposed Rule 1315 is considered, whichever comes later.*

Tables 7 and 8 summarize the changes between AQMD's pre-September 2006 federal NSR tracking system and the proposed federal NSR tracking system that would be established by PR 1315. Specifically, these tables compare the existing and proposed revised NSR tracking systems for pre-1990 emission reductions and 1990 and beyond emission reductions.

**Table 7**  
**Summary of Changes between AQMD'S Pre-September 2006 and Proposed Revised NSR Tracking Systems for Equivalency with Federal Requirements:**

**Pre-1990 Federal Emission Reductions**

<b>AQMD's Pre-September 2006 NSR Tracking System</b>	<b>AQMD's Proposed Revised NSR Tracking System</b>
Starting Balance based on data generated in 1990 from facilities' (both major and minor sources) emission reductions recorded as negative NSR balances. This data has been used and previously reported in all pre-September 2006 annual NSR status reports.	Initial Starting Balance would be based on data from facilities' (both major and minor sources) emission reductions recorded as negative NSR balances that were originally verified in 1990-1991 and re-verified in 2003-2005 and all or some records currently exist. This would exclude all other data for emission reductions with no present records.
No credit taken for surplus reductions from SO <sub>x</sub> , CO, and PM <sub>10</sub> offsets provided (at 120% of PTE) as ERCs for minor sources.	No Change.
No credit taken for the 20% additional SO <sub>x</sub> , CO, and PM <sub>10</sub> offsets (ERCs) for major sources provided at a ratio of 1.2-to-1.0 compared to 1.0-to-1.0.	No Change.

**Table 7 (continued)****Pre-1990 Federal Emission Reductions**

<b>AQMD's Pre-September 2006 NSR Tracking System</b>	<b>AQMD's Proposed Revised NSR Tracking System</b>
No credit taken for emission reductions created from the application of zero BACT threshold <sup>(1)</sup> .	No Change.

<sup>(1)</sup> "Zero BACT threshold" refers to AQMD's requirement that BACT applies to all emission increases (no matter how small) at all sources (no matter how low their potential to emit).

**Table 8**  
**Summary of Changes between AQMD'S Pre-September 2006 and Proposed Revised NSR Tracking Systems for Equivalency with Federal Requirements:**

**1990 and Beyond Federal Emission Reductions**

<b>AQMD's Pre-September 2006 NSR Tracking System</b>	<b>AQMD's Proposed Revised NSR Tracking System</b>
Remaining pre-1990 credits eligible for use until depleted.	Remaining pre-1990 credits would be eligible for use until the end of 2005; no pre-1990 credits would be used post-2005.
No credit taken for orphan shutdowns from minor sources.	Creditable orphan shutdowns would include shutdowns of both major and minor sources.
No further discount/adjustment applied to estimate actual emissions.	All orphan shutdowns would be discounted/adjusted to reflect estimated actual emissions.
No further discount/adjustment for orphan shutdowns due to BARCT at time of use.	All orphan shutdowns would be discounted/adjusted to BARCT at time of use by discounting balances "carried over" from one year to the next.
BACT discount of newly-issued ERCs eligible for crediting to AQMD's offset accounts (as previously approved by EPA).	No BACT-discount credits from any past or future-issued ERCs would be eligible for crediting to AQMD's offset accounts except those for specific projects for which staff has demonstrated or demonstrates and EPA has agreed or agrees that the BACT discount is beyond approved SIP rules and rules scheduled to be approved by AQMD in the following year's rule cycle.
VOC and NOx offsets provided by AQMD for federal major sources exempted by AQMD at a ratio of 1.2-to-1.0.	No Change.
SOx, CO, and PM10 offsets provided by AQMD for major sources exempted from providing offsets by Rule 1304 or using the Priority Reserve at a ratio of 1.2-to-1.0 compared to 1.0-to-1.0.	SOx, CO, and PM10 offsets would be provided by AQMD for major sources exempted from providing offsets by Rule 1304 or using the Priority Reserve at a ratio of 1.0-to-1.0.



**Table 8 (continued)****1990 and Beyond Federal Emission Reductions**

<b>AQMD's Pre-September 2006 NSR Tracking System</b>	<b>AQMD's Proposed Revised NSR Tracking System</b>
No credit taken for surplus reductions created from offsets (ERCs) provided (at 120% of PTE) by minor sources that are not exempt from offset requirements under AQMD NSR rules (e.g., > 4 but < 10 TPY of VOC and NO <sub>x</sub> , etc.).	Credit would be taken for surplus reductions created from offsets (ERCs) provided (at 120% of PTE) by minor sources ( <i>i.e.</i> , not subject to federal offset requirements) that are not exempt from offset requirements under AQMD rules (e.g., > 4 but < 10 TPY of VOC and NO <sub>x</sub> , etc.).
No credit taken for surplus reductions created from the 20% additional SO <sub>x</sub> , CO, and PM <sub>10</sub> offsets (ERCs) provided by major sources at 1.2-to-1.0 ratio compared to 1.0-to-1.0 ratio.	Credit would be taken for surplus reductions created from the 20% additional SO <sub>x</sub> , CO, and PM <sub>10</sub> offsets (ERCs) provided by major sources at a ratio of 1.2-to-1.0 compared to 1.0-to-1.0 ratio.
No credit taken for emission reductions created from the application of zero BACT threshold.	No Change.
No credit taken for application of LAER in excess of federal requirements to non-major modifications resulting in any increase in emissions at a major stationary source for non-ozone precursors (SO <sub>x</sub> , CO, and PM <sub>10</sub> ).	No credit would be taken for application of LAER in excess of federal requirements to non-major modifications resulting in any increase in emissions at a major stationary source for non-ozone precursors (SO <sub>x</sub> , CO, and PM <sub>10</sub> ) at this time. If AQMD decides to pursue use of such credits in the future, further discussions with EPA will be necessary.
No SIP adjustment for NSR tracking system and no backstop to ensure net emissions increases do not exceed AQMP growth assumptions.	Appropriate assumptions would be included in the SIP to reflect NSR tracking system with commitment to make up any shortfall in next AQMP revision pursuant to state law and backstop provisions stopping issuance of permits to major and minor sources relying on new use of credits from internal offset accounts if cumulative net emissions increase of any air contaminant exceeds the rule cap based on AQMP growth assumption for that air contaminant.

**USE OF OFFSETS**

The above-described offsets would be used by AQMD for the following purposes:

- To provide offsets for federal major sources that are exempt from offset requirements under AQMD Regulation XIII (Rule 1304)<sup>16</sup>; and

<sup>16</sup> Rule 1304 includes exemptions from the offset requirements of Rule 1303(b)(2) for a variety of categories of sources. Three of those categories—replacements with no increase in maximum rating, relocations without any increase in potential to emit, and concurrent facility modifications resulting in net emissions decreases—are

- To provide Priority Reserve offsets (Rule 1309.1) to major sources.

These uses of the offsets in AQMD's accounts ensure ongoing equivalence with federal NSR requirements. As indicated earlier, a list of sources that Rule 1304 exempts from offset requirements or that are eligible to obtain offsets from the Priority Reserve pursuant to Rule 1309.1 and for which AQMD uses its offset accounts to demonstrate equivalency is presented in Appendix III.

## DEMONSTRATIONS OF EQUIVALENCY

AQMD's proposed revised NSR tracking system would call for the Executive Officer to make annual equivalency demonstrations in two steps. In the first step, AQMD would make a preliminary determination of equivalency (PDE) within twelve months of the close of each reporting period. Each PDE would be a very conservative determination based on the reporting period's combined debits but would not include the credits from that reporting period. Therefore, the PDE would represent a "worst case" analysis. Provided the PDE demonstrates equivalency, the surplus reductions for the reporting period would be reported (and credited) in the subsequent PDE, as illustrated in Figure 1. However, if the PDE does not demonstrate equivalency, AQMD would, as the second step, make a final determination of equivalency (FDE), which would include crediting the reporting period's surplus reductions to the offset accounts. The FDE would be prepared within six months of the PDE time frame, as illustrated in Figure 2. For example, the PDE for reporting year B (including all debits for years A and B and credits for year A only) would be completed by the end of reporting year C. Provided this preliminary annual determination for year B demonstrates equivalency, the year B credits would then be included in the preliminary annual determination for year C (to be completed by the end of year D). On the other hand, if the PDE for year B does not demonstrate equivalency, an FDE incorporating year B's credits would be prepared within six months of the end of year C. In lieu of preparing a PDE and an FDE for a particular reporting period, the Executive Officer would have the option to merge the PDE into the FDE provided the FDE includes all of the elements of the PDE that it subsumes and it complies with the completion and reporting requirements of the subsumed PDE. The offset accounting for year B would be conducted in the following order:

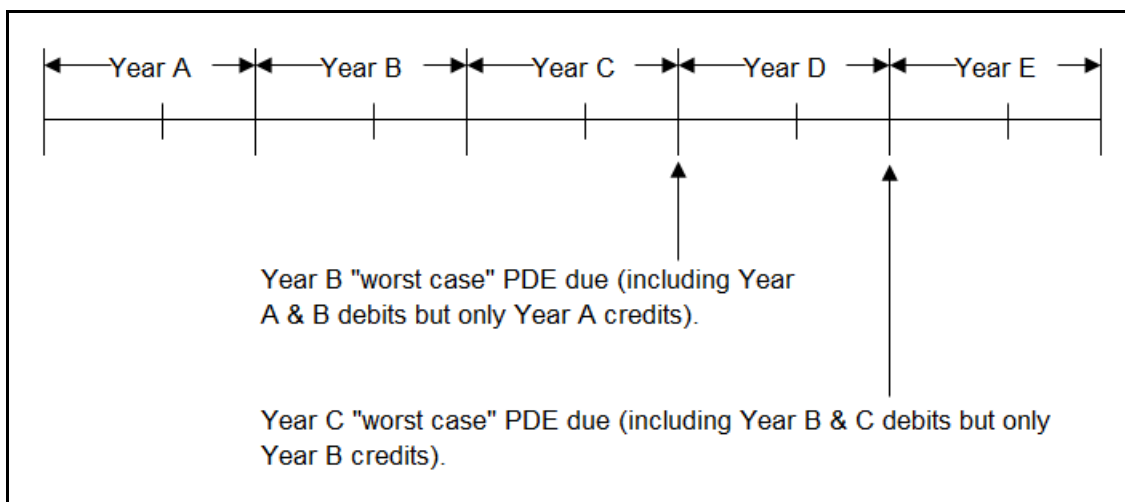
1. Subtract year B's debits from any remaining pre-1990 credits (1990-2005 timeframe only); then
2. Subtract any debits remaining after step 1 from any post-1990 credits remaining from year A; then
- 3a. If there are no remaining debits, discount any post-1990 credits remaining from step 2 as described in the discussion of Surplus Discount at Time of Use. Then add Year B's credits to the remaining discounted post-1990 credits.

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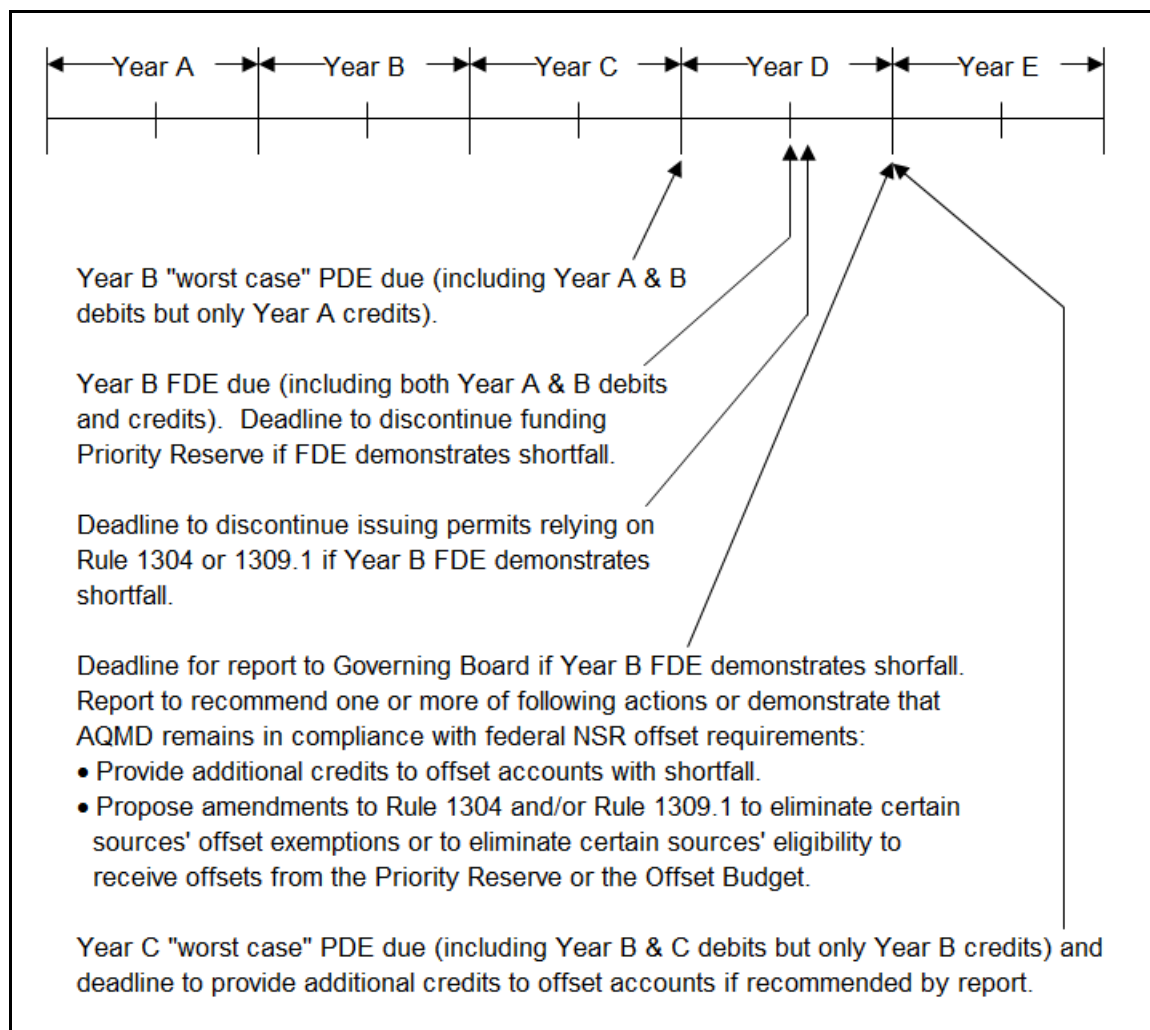
essentially self offsetting in that for each emissions increase they include and provide a corresponding emissions decrease. Furthermore, BACT is required to be employed on all the new sources permitted pursuant to these exemption provisions. Therefore, the decreases are expected to offset the increases, so neither the emissions reductions associated with the old permits nor the increases associated with the new permits need to be tracked pursuant to Rule 1315.

- 3b. If there are any remaining debits from step 2 (meaning there are not any post -1990 credits predating year B remaining), subtract year B's remaining debits from year B's credits.

**Figure 1**  
**Equivalency Demonstration Timeline**  
**(PDE Demonstrates Equivalency)**



**Figure 2**  
**Equivalency Demonstration Timeline**  
**(PDE Does Not Demonstrate Equivalency)**



Each PDE and FDE would be presented to AQMD's Governing Board in a report from the Executive Officer ("Board Letter") at a public meeting of the AQMD Governing Board, no later than the second regularly-scheduled Governing Board meeting after the conclusion of the applicable twelve-month (PDE) or six-month (FDE) preparation period. The reported determinations of equivalency would include the balances in AQMD's offset accounts, as well as summaries of credit and debit data by category such as Priority Reserve, Community Bank, and Rule 1304 exemptions. Table 9 summarizes the differences between AQMD's pre-September 2006 and proposed revised determinations of equivalency.

In addition, AQMD would evaluate the future availability of offsets in AQMD's accounts by conducting a two-year projection of debits, credits, and account balances in conjunction with (but not as a part of) each determination of equivalency. This analysis would include projected debits, credits, and offset account balances for each of the two years following the subject

reporting period. The projections for each pollutant would be based on the average of the previous five years' credits and debits for that pollutant. The purpose of the projections would be to provide the Executive Officer a prospective indicator that a shortfall may be coming so that the Executive Officer can further investigate, inform the Governing Board of the findings of the investigation, and recommend appropriate actions to prevent or resolve the shortfall or demonstrate that no action is needed because AQMD remains in aggregate equivalency with federal offset requirements; the projections would not be intended to demonstrate equivalency retrospectively.

**Table 9**  
**Summary of Changes between AQMD'S Pre-September**  
**2006 and Proposed Revised Determinations of Equivalency**

<b>AQMD's Pre-September 2006 NSR Tracking System</b>	<b>AQMD's Proposed Revised NSR Tracking System</b>
Annual reports to the Governing Board "regarding the effectiveness of Regulation XIII in meeting the state and federal NSR requirements" specified by Rule 1310 – Analysis and Reporting.	Preliminary (worst case) determination of equivalency (PDE) would be completed within one year of the close of the reporting period. If PDE does not verify equivalency, final determination of equivalency (FDE) would be completed within six months of the PDE timeframe.
No projections of future equivalency done with annual equivalency demonstrations.	All annual demonstrations of equivalency (FDE or PDE) would be accompanied by projected NSR offset account balances for the two years following the subject reporting period. These projections would be for the purpose of prospectively determining if implementation of backstop measures is necessary to prevent an offset account shortfall and would not constitute a part of the determinations of equivalency.

## TRACKING AND BACKSTOP

AQMD's proposed revised NSR tracking system includes equivalency backstop provisions that would be triggered in the event that an FDE does not demonstrate equivalency. In such an event, the backstop provisions would require the Executive Officer to both discontinue funding the Priority Reserve for each air contaminant with a shortfall<sup>17</sup> and discontinue issuing permits to

<sup>17</sup> Offsets provided from the Priority Reserve would be debited from AQMD's offset accounts for the period during which the permit was issued (*i.e.*, for the timeframe they are used) whereas the quarterly allocations made to the Priority Reserve pursuant to Rule 1309.1(a) would not constitute debits from AQMD's offset accounts. The newly-proposed future years' projections of balances in AQMD's offset accounts would include projected use of Priority Reserve offsets as well as sources exempted pursuant to Rule 1304. A significant portion of the quarterly allocations to the Priority Reserve are used by sources that are not subject to federal offset requirements (*i.e.*,

construct and permits to operate that rely on Rule 1304 exemptions or on offsets from the Priority Reserve for each air contaminant that has a shortfall to sources that are major sources of that air contaminant. Funding of the Priority Reserve and issuance of permits relying on Rule 1304 exemptions or on offsets from the Priority Reserve may resume upon completion of an FDE demonstrating that the shortfall no longer exists. Additionally, if there is an actual or projected shortfall in any of the offset accounts, the backstop provisions would require the Executive Officer to prepare a report to the Governing Board recommending appropriate action to remedy the shortfall. The report would either recommend implementing one or more of the following actions as needed to correct the shortfall or include an explanation of why it is not necessary to implement any of the following actions by making a demonstration that AQMD remains in compliance with federal NSR offset requirements on an aggregate basis, as applicable:

- Provide additional offsets within six months of the FDE demonstrating the shortfall or of the projection that predicted it; such offsets could be derived through AQMD purchase of credits, through AQMD funding of emission reduction projects using quantification protocols or rules approved by EPA/CARB on a case-by case or programmatic basis, application of LAER/BACT in excess of federal requirements<sup>18</sup>, or other approved sources of credits.
- Propose amendments to Rules 1309.1 and/or 1304 to restrict access by specific sources to the Priority Reserve and/or to eliminate certain categories of offset exemptions, respectively, to be identified during the rulemaking process.

In addition to the equivalency backstop provisions discussed above, the proposed revised NSR tracking system also includes backstop provisions designed to ensure the impacts of implementing the proposed project do not exceed those analyzed in the Program Environmental Assessment (PEA) pursuant to the California Environmental Quality Act (CEQA; refer to the CEQA Analysis section of this staff report for further information regarding the PEA). In particular, the proposed rule includes provisions directing the Executive Officer to track the cumulative net emissions increase of each nonattainment air contaminant tracked pursuant to the proposed revised federal NSR tracking system. (Net emission increase is defined as the “aggregate increase in potential to emit from permitted major and minor stationary sources of a nonattainment air contaminant subject to tracking pursuant to paragraph (c)(2) offset from the Priority Reserve or exempt from offsets pursuant to Rule 1304 minus the aggregate emissions reductions of the same nonattainment air contaminant tracked pursuant to paragraph (c)(3) over the same time period.”) The proposed rule also includes a table summarizing cumulative net emission increase thresholds for each nonattainment air contaminant to be initially tracked for each year from 2010 through 2030. The CEQA backstop provisions specify that, if the cumulative net emission increase of a nonattainment air contaminant tracked pursuant to the proposed rule and reported in an FDE exceeds the corresponding threshold for that air contaminant, the Executive Officer shall discontinue issuing permits to construct and permits to

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federal minor sources) and, therefore, do not need to be debited from AQMD’s offset accounts for purposes of demonstrating equivalency with federal NSR requirements.

<sup>18</sup> Precise quantification of all surplus credits generated through application of LAER/BACT in excess of federal requirements may be extremely resource intensive. Therefore, AQMD could, with EPA approval, demonstrate that such application of LAER/BACT has generated at least enough surplus reductions to make up for the shortfall using very conservative assumptions to estimate the surplus reductions.

operate that rely on new use of Rule 1304 exemptions or Priority Reserve offsets for that air contaminant. If triggered, this backstop provision would prevent the issuance of permits drawing on the Priority Reserve or on Rule 1304 exemptions for the air contaminant with cumulative net emission increases in excess of the applicable threshold in the proposed rule to major or minor sources until the cumulative net emissions increase is reduced to a level at least ten percent below its threshold.

Table 10 summarizes the differences between AQMD's pre-September 2006 and proposed revised NSR tracking backstop measures.

**Table 10**  
**Summary of Changes between AQMD'S Pre-September**  
**2006 and Proposed Revised Backstop Measures**

AQMD's Existing NSR Tracking System	AQMD's Proposed Revised NSR Tracking System
No backstop measures identified for addressing potential shortfalls in AQMD's offset accounts.	<p>Several backstop provisions identified in the proposed revised NSR tracking system:</p> <ul style="list-style-type: none"> <li>• If there is an actual shortfall: <ul style="list-style-type: none"> <li>▪ Discontinue funding the Priority Reserve for the contaminant(s) with a shortfall; and</li> <li>▪ Discontinue issuing permits relying on AQMD's offset accounts for pollutant(s) with a shortfall.</li> </ul> </li> <li>• If there is an actual or projected shortfall, recommend one or more of the following or demonstrate continued compliance with federal NSR offset requirements, as appropriate: <ul style="list-style-type: none"> <li>▪ Provide additional credits within six months of the demonstration or projection of the shortfall; to be derived from AQMD purchase of credits, AQMD funding of emission reduction projects using quantification protocols or rules approved by EPA, application of LAER/BACT in excess of federal/California requirements, or other EPA-approved credit sources.</li> <li>▪ Suspend issuance of Priority Reserve credits within 90 days of the report to the Governing Board, not to be resumed until equivalency has been reestablished.</li> <li>▪ Propose amendments to Rules 1309.1 and/or 1304 to eliminate access to the Priority Reserve by certain sources and/or eliminate certain offset exemptions, respectively.</li> </ul> </li> </ul>

**Table 10 (continued)**  
**Summary of Changes between AQMD’S Pre-September**  
**2006 and Proposed Revised Backstop Measures**

AQMD’s Existing NSR Tracking System	AQMD’s Proposed Revised NSR Tracking System
No backstop measures identified for addressing cumulative net emission increases.	Discontinue issuing permits relying on new use of the Priority Reserve or of Rule 1304 exemptions if cumulative net emission increase for any pollutant exceeds the specified threshold until the cumulative net emission increase has returned to a level at least 10% below current threshold.

## DISCUSSION OF PR 1315 RULE LANGUAGE

The following discussion provides a subdivision-by-subdivision analysis of PR 1315:

- **PR 1315(a) Purpose**  
 Subdivision (a) would summarize the purpose of this proposed rule. In particular, PR 1315 would specify and memorialize in rule form the procedures to: maintain AQMD’s ability to issue permits to major sources that rely on the Priority Reserve for emissions offsets or that are exempt from AQMD’s NSR offset requirements, demonstrate programmatic equivalency between its NSR program and federal NSR offset requirements, and demonstrate equivalence between AQMD and federal NSR offset requirements and ensure that emissions do not exceed those analyzed in the CEQA document.
- **PR 1315(b) Definitions**  
 Subdivision (b) would provide definitions for “Community Bank,” “net emission increase,” “offset ratio,” “orphan reduction,” “orphan shutdown,” “Priority Reserve,” and “shortfall.”
- **PR 1315(c) Offset Accounts for Federal NSR Equivalency**
  - **Paragraph(c)(1) District Offset Accounts for Federal Nonattainment Air Contaminants**  
 Paragraph (c)(1) would establish AQMD’s offset accounts, including starting balances for VOC, NOx, SOx, CO, and PM10 as of 1990, and specify that any portion of the starting balances not used by December 31, 2005 would be retired for clean air. Paragraph (c)(1) would further direct the Executive Officer to establish additional offset accounts for any nonattainment air contaminants (excluding PM2.5<sup>19</sup>) or their precursors that become subject to federal nonattainment NSR offset requirements (unless by rule, the District establishes that Rule 1304 and Rule 1309.1 do not apply to such contaminants or their precursors) and would provide for the Executive Officer to discontinue tracking and reporting the offset account for any air contaminant that is changed from a

<sup>19</sup> The provision directing the Executive Officer to establish additional offset accounts for any nonattainment air contaminants or their precursors that become subject to federal nonattainment NSR offset requirements is not applicable to PM2.5 because AQMD is developing a separate regulation specifically addressing federal nonattainment NSR for PM2.5 and Regulation XIII will not be applicable to PM2.5. Therefore, facilities will not be able obtain PM2.5 offsets via the Priority Reserve or the offset exemptions in Rule 1304.



nonattainment designation to attainment by EPA. Finally, paragraph (c)(1) would specify the criterion for considering AQMD's NSR program equivalent with federal nonattainment NSR offset requirements to be that following the procedures in PR 1315 results in the balances in AQMD's offset accounts remaining positive.

- Paragraph (c)(2) Tracking of Offset Account Debits for Federal NSR Equivalency  
Paragraph (c)(2) would identify the sources of debits from AQMD's offset accounts as emissions offsets from the Priority Reserve or Community Bank pursuant to Rule 1309.1 for major sources and exemptions from the offset requirements of Rule 1303 for major sources pursuant to Rule 1304 and would specify that the offset ratios applicable to these debits are 1.2-to-1.0 for extreme nonattainment air contaminants and their precursors and 1.0-to-1.0 for all other nonattainment air contaminants.
  - Paragraph (c)(3) Tracking of Offset Account Credits for Federal NSR Equivalency  
Paragraph (c)(3) would identify the sources of credits to AQMD's offset accounts as orphan shutdowns (at eighty percent of permitted emission levels<sup>20</sup>), orphan reductions (at eighty percent of the reduction in permitted emission levels), ERCs provided as offsets by minor sources, excess ERCs provided at a 1.2-to-1.0 offset ratio rather than 1.0-to-1.0 by major sources of non-attainment air contaminants that are not extreme non-attainment air contaminants, payback of NSR offset debt through the ERC banking process, and the BACT discount of newly-banked ERCs in cases where "the Executive Officer demonstrates and EPA concurs that the subtracted amount exceeds the discount that would be required by approved SIP rules and rules scheduled to be approved by the District in the following year's rule cycle." Paragraph (c)(3) would also provide the Executive Officer the option to not track some of the potential sources of credits provided sufficient credits remain in the federal offset accounts to demonstrate equivalence with federal NSR offset requirements each reporting period.
  - Paragraph (c)(4) Surplus at the Time of Use  
Paragraph (c)(4) would direct the Executive Officer to discount all orphan shutdown and orphan reduction credits deposited in AQMD's federal offset accounts pursuant to paragraph (c)(3) to ensure that they are surplus at the time of use. This discounting would be performed annually "based on the percentage reduction in overall permitted emissions projected to be achieved as a result of implementation of control requirements that become effective during the year for each specific pollutant within the District."
- PR 1315(d) Net Emissions Increases
    - Paragraph (d)(1) Emission Increases at Minor Facilities  
Paragraph (d)(1) would direct the Executive Officer to track all increases in potential to emit at minor facilities pursuant to Rule 1304 or Rule 1309.1; such increases would not constitute debits from the federal offset accounts.

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<sup>20</sup> The permitted emission level is the potential to emit of the source in pounds per day on a thirty-day average basis calculated by an AQMD engineer as part of the evaluation of the permit application. This emission level often, but not always, appears on the permit either directly as an emission limit or indirectly as a throughput limit (*e.g.*, a limit on fuel or raw material consumption). In the case of a permit that did not have a 30-day average emission level calculated by the engineer as a part of the application evaluation (*e.g.*, a "pre-NSR" permit), the permitted emission level would be estimated based on the controlled emission rate (the source's emission rate considering the effect of any installed control equipment in pounds per hour) and the operating schedule (if no operating schedule is on file for the source then a schedule of eight hours per day, five days per week, and fifty weeks per year would be used).

- Paragraph (d)(2) Calculation of Net Emission Increases  
Paragraph (d)(2) would direct the Executive Officer to calculate the cumulative net emission increase of each nonattainment air contaminant tracked pursuant to the proposed rule from the date of adoption through the end of each post-adoption reporting period no later than the FDE completion deadline for each reporting period.
- Paragraph (d)(3) Reporting Net Emission Increases  
Paragraph (d)(3) would specify that each FDE report to the Governing Board starting with the report for the 2010 FDE shall include the cumulative net emission increases calculated pursuant to paragraph (d)(2). The net emissions increases would be separate from the FDEs and do not constitute an element of the them.
- PR 1315(e) Federal NSR Equivalency Determination Reports
  - Paragraph (e)(1) Reporting Periods  
Paragraph (e)(1) would establish the following reporting periods for purposes of NSR tracking: October 1, 1990 through July 31, 1995; each year starting with August 1995 through July 1996 and ending with August 2003 through July 2004; August 2004 through December 2005; and each calendar year commencing with 2006.
  - Paragraph (e)(2) Preliminary Determinations of Equivalency  
Paragraph (e)(2) would specify that, commencing with the 2009 reporting period, the Executive Officer would complete a PDE within twelve months of the end of each reporting period and report each to the Governing Board and to EPA by the second regularly-scheduled Governing Board meeting after its completion deadline. Each PDE would be a conservative assessment of the remaining balances in AQMD's offset accounts at the end of the reporting period obtained by subtracting the reporting period's aggregate debits from the remaining balance that existed at the start of the reporting period without accounting for any credits that accrued during the reporting period.
  - Paragraph (e)(3) Final Determinations of Equivalency  
Paragraph (e)(3) would specify that, commencing with the 2009 reporting period, the Executive Officer would complete an FDE within eighteen months of the end of each reporting period for which the PDE did not demonstrate equivalence with federal NSR offset requirements (*i.e.*, did not show a positive balance in each of AQMD's federal offset accounts) and report each to the Governing Board and to EPA by the second regularly-scheduled Governing Board meeting after its completion deadline. Each FDE would be an assessment of the remaining balances in AQMD's offset accounts at the end of the reporting period obtained by subtracting the reporting period's aggregate debits from and adding the reporting period's aggregate credits to the remaining balance that existed at the start of the reporting period. The Executive Officer would have the option to provide the same credit and debit accounting for any federal offset accounts that were demonstrated to be equivalent with federal NSR offset requirements (*i.e.*, the PDE did show a positive balance) either with the FDE for the same reporting period or with the PDE for the next reporting period.
  - Paragraph (d)(4) Early FDE Subsuming PDE  
Paragraph (d)(4) would provide the Executive Officer the option to combine all of the elements of a reporting period's PDE and FDE into the FDE provided the consolidated FDE complies with the completion and reporting deadlines of the subsumed PDE.

- PR 1315(f) Projections of District Offset Account Balances and Cumulative Net Emission Increases  
Subdivision (f) would specify that each PDE [PR 1315(e)(2)] report and each FDE [PR 1315(e)(3)] report would also include projections of the federal offset account balances at the end of each of the two subsequent reporting periods based upon the average of the total annual debits and credits for the five reporting periods most recently included in a PDE or an FDE. Similarly, commencing with the reports for the 2012 reporting period, each PDE report and each FDE report would also include projections of the cumulative net emission increases at the end of each of the two subsequent reporting periods based upon the average of the aggregate increase in potential to emit of each nonattainment air contaminant and the average of the aggregate emissions reductions of the same nonattainment air contaminant for the five reporting periods most recently included in a PDE or an FDE or each of the reporting periods commencing with the 2011 reporting period, whichever is fewer reporting periods. These projections would be reported with the results of the PDE or FDE but would not be a part of them.
- PR 1315(g) Equivalency Backstop Provisions
  - Paragraph (g)(1) Funding of the Priority Reserve and Issuance of Permits  
Paragraph (g)(1) would establish that, if the most-recent FDE [PR 1315(e)(3)] demonstrates a shortfall in the federal offset account for any air contaminant, the Executive Officer would discontinue funding the Priority Reserve for the air contaminant(s) with a shortfall and discontinue issuing permits to construct and permits to operate that rely on Rule 1304 exemptions or the Priority Reserve for any air contaminant with a shortfall to any source that is a major source of that air contaminant. The Executive Officer would be able to resume funding the Priority Reserve and issuing such permits upon completion of an FDE demonstrating that the shortfall no longer exists.
  - Paragraph (g)(2)  
Paragraph (g)(2) would, in the event of an FDE [PR 1315(e)(3)] demonstrating a shortfall or of a projection [PR 1315(f)] predicting a shortfall, direct the Executive Officer to prepare a report to the Governing Board either recommending action to remedy the shortfall or demonstrating that AQMD “remains in compliance with federal nonattainment NSR offset requirements on an aggregate basis.” If such a report were to recommend action to remedy the shortfall, the recommended action would include one or more of the following:
    - Provide additional credits to the federal offset account(s) with a shortfall within six months of the demonstration or projection of the shortfall. The Executive Officer could purchase them, fund emission reduction projects using quantification protocols approved by EPA, track application of BACT (federal LAER) in excess of federal requirements<sup>21</sup>, or implement other credit sources approved by EPA; and/or
    - Propose amendments to Rule 1304 and/or Rule 1309.1 to eliminate certain offset exemptions or certain sources’ ability to obtain offsets from the Priority Reserve.

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<sup>21</sup> Quantification of all surplus emissions reductions resulting from application of LAER beyond federal requirements could be extremely resource intensive. Therefore, with the concurrence of EPA, AQMD could make a demonstration based on conservative assumptions that application of LAER has generated at least enough surplus reductions to rectify the shortfall.

- **PR 1315(h) California Environmental Quality Act Backstop Provisions**  
Subdivision (h) would establish annual cumulative net emission increase thresholds for nonattainment air contaminants resulting from major and minor Rule 1309.1 and Rule 1304 sources based upon AQMP growth projections. It would further specify that, if the cumulative net emission increase of a nonattainment air contaminant from such sources exceeds the threshold for that air contaminant, issuance of permits to construct and permits to operate relying on new use of Rule 1304 exemptions or Priority Reserve offsets for that air contaminant will cease, not to resume unless and until the corresponding net major source emission increase returns to a level at least ten percent below the corresponding threshold.
- **PR 1315(i) State Implementation Plan Submittals**  
Subdivision (i) would specify that paragraphs (b)(2) and (f)(2) and subdivisions (d), (h), (i), and (j) shall not be submitted to the California Air Resources Board or to the United States Environmental Protection Agency for inclusion in the California State Implementation Plan.
- **PR 1315(j) Sunset Date for Permit Issuance**  
Subdivision (j) would specify that Rule 1315 expires on January 1, 2031.

## **CEQA ANALYSIS**

The AQMD is the lead agency for the proposed project and has prepared a PEA pursuant to its certified regulatory program (CEQA Guidelines §15251(l)) as codified as AQMD Rule 110. Pursuant to CEQA Guidelines §15252 and §15168, a Draft Program Environmental Assessment (PEA) for the Proposed Rule (PR) 1315 has been prepared because the environmental effects of the proposed rule would establish criteria to govern the conduct of a continuing program.

PR 1315 would codify existing procedures and establish new requirements for establishing equivalency under federal New Source Review requirements through the use of AQMD's internal emission offsets by operators of various projects that either obtain emissions offsets pursuant to Rule 1309.1 – Priority Reserve or are exempt from the emissions offsets requirements of Rule 1303 – Requirements pursuant to Rule 1304 – Exemptions. The PEA analyzes direct and indirect impacts from both major and non-major sources relying on offsets from the AQMD's internal offset accounts pursuant to Rule 1309.1 – Priority Reserve or Rule 1304 – Offset exemptions. The analysis in the PEA includes the worst-case assumption that all net emission increases will be used at a rate consistent with growth rate projections in the 2007 Air Quality Management Plan (AQMP).

It was determined that only air quality would be directly impacted by the proposed project. However, the proposed project has the potential for significant indirect adverse impacts on all environmental topic areas on the environmental checklist.

The direct air quality impacts from the emissions resulting from permits issued and emission reductions foregone and indirect environmental impacts from the siting, construction, and operation of those facilities provided offsets from the AQMD's internal accounts would exceed the AQMD's significance thresholds, so the environmental impacts from the proposed project have been determined to be significant. The PEA has been circulated for a 45-day public review

and comment period. After the close of the public review period, responses to all comments will be prepared and included in the PEA, at which time the document will become a Final PEA.

## **SOCIO-ECONOMIC IMPACTS**

The analysis of socio-economic impacts will be available no later than November 3, 2010 or 30 days before the Board Meeting at which the Proposed Rule 1315 is considered, whichever comes later.

## **AQMP AND LEGAL MANDATES**

The California Health and Safety Code requires AQMD to adopt an AQMP to meet state and federal ambient air quality standards in the South Coast Air Basin. In addition, the California Health and Safety Code requires that AQMD adopt rules and regulations that carry out the objectives of the AQMP. While Proposed Rule 1315 is not a control measure included in the AQMP, its requirements are consistent with the AQMP objectives.

## **RESOURCE IMPACTS**

Due to the volume and complexity of analysis required, it is estimated that implementation of PR 1315 would require one full time employee and \$150,000 in programming costs for enhancements to AQMD's New Source Review computer program.

## **DRAFT FINDINGS**

Before adopting, amending or repealing a rule, the AQMD Governing Board shall make findings of necessity, authority, clarity, consistency, non-duplication, and reference, as defined in Health and Safety Code Section 40727. The draft findings are as follows:

**Necessity** – The AQMD Governing Board has determined that a need exists to adopt Proposed Rule 1315 – Federal New Source Review Tracking System to:

- Maintain AQMD's ability to continue to administer its new source review program for major and minor sources for facility modernization and to accommodate population growth through implementation of Rule 1304 and Rule 1309.1. AQMD's policy objectives include allowing the permitting system to operate in order to: 1) allow facility modernization which will increase efficiency and reduce air pollution, 2) allow facilities to install pollution control equipment, 3) allow emergency equipment to be installed, 4) allow permitting of equipment necessary for essential public services and small emitters, 5) allow operation of portable equipment and other sources determined as a policy matter to be exempt from offsets or eligible for Priority Reserve credits, and 6) take into account environmental and socioeconomic benefits as well as environmental and socioeconomic impacts;
- Memorialize in rule form the accounting procedures AQMD uses to establish equivalency of AQMD's New Source Review program with federal offset requirements, and ensure that valid offsets are projected to be available in AQMD internal offset accounts before a major

source relying on such offsets is permitted thus assuring that increases in emissions resulting from such sources are fully offset; and

- Recognize sufficient previously-unused emission reductions that are beyond those required by applicable regulatory requirements in order to demonstrate federal equivalency for major sources that are exempt under Rule 1304 or that obtain credits from the Priority Reserve under Rule 1309.1.

**Authority** – The AQMD Governing Board obtains its authority to adopt, amend, or repeal rules and regulations from Sections 40000, 40702, 40725 through 40728, and 42300 *et seq.* of the California Health and Safety Code.

**Clarity** – The AQMD Governing Board has determined that Proposed Rule 1315 – Federal New Source Review Tracking System, as proposed to be adopted, is written or displayed so that its meaning can be easily understood by the persons directly affected by it.

**Consistency** – The AQMD Governing Board has determined that Proposed Rule 1315 – Federal New Source Review Tracking System, as proposed to be adopted is in harmony with, and not in conflict with or contradictory to, existing statutes, court decisions, or state or federal regulations.

**Non-Duplication** – The AQMD Governing Board has determined that Proposed Rule 1315 – Federal New Source Review Tracking System, as proposed to be adopted, does not impose the same requirements as any existing state or federal regulation and is necessary and proper to execute the power and duties granted to, and imposed upon, the AQMD.

**Reference** – The AQMD Governing Board, in adopting Proposed Rule 1315 – Federal New Source Review Tracking System, references the following statutes that the AQMD hereby implements, interprets, or makes specific: Health and Safety Code Sections 40910 *et seq.* and 42300 *et seq.* and Clean Air Act Sections 172, 173, and 182(e).

## CONCLUSIONS AND RECOMMENDATIONS

The comparative analysis referred to in Health and Safety Code Section 40727.2 is not required because PR 1315 would not establish a new emissions limit, make an existing limit more stringent, or impose new or more stringent monitoring, reporting, or recordkeeping requirements on a source. Similarly, the proposed rule would not impose any requirements on regulated sources so the incremental cost effectiveness analysis identified in Health and Safety Code Section 40920.6 (which only applies to adoption of rules or regulations that require use of best available retrofit control technology or that are feasible measures pursuant to Health and Safety Code Section 40914) is not required.

Staff recommends adoption of Proposed Rule 1315 for the reasons stated in this staff report.

**APPENDIX I**  
**AQMD'S NSR OFFSET TRACKING—UPDATED FEDERAL RUNNING BALANCES**

Appendix I will be available no later than November 3, 2010 or 30 days before the Board Meeting at which the Proposed Rule 1315 is considered, whichever comes later.



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**APPENDIX II:**  
**LIST OF SOURCES EXEMPT FROM OFFSET REQUIREMENTS AND PROVISIONS**  
**COVERED BY EQUIVALENCY SHOWING**

The following sources are exempt from AQMD's NSR offset requirements or eligible to obtain their offsets from AQMD's Priority Reserve but are not exempt from federal NSR offset requirements. Therefore, use of these exemptions or use of Priority Reserve offsets by major sources requires debits from AQMD's offset accounts and would be reflected in AQMD's demonstrations of equivalency.

**Rule 1304 - Exemptions:**

- (1) Replacements of electric utility steam boilers with combined cycle gas turbines, intercooled, chemically-recuperated gas turbines, other advanced gas turbines, solar, geothermal, or wind energy, or other equipment to allow compliance with Rule 1135 – Emissions of Oxides of Nitrogen from Electric Power Generating Systems or Regulation XX – Regional Clean Air Incentives Market. If the replacement results in a per-utility increase in basinwide electricity generating capacity, the emissions associated with the increase in capacity is not exempt.
- (2) Abrasive Blasting Equipment
- (3) Air Pollution Control Strategies
- (4) Emergency Equipment
- (5) Portable Internal Combustion Engines
- (6) Methyl Bromide Fumigation
- (7) Replacement of Ozone Depleting Compounds
- (8) Portable Equipment
- (9) Regulatory Compliance
- (10) Regulatory Compliance for Essential Public Services
- (11) Facility Exemption (VOC, NO<sub>x</sub>, SO<sub>x</sub>, or PM<sub>10</sub> PTE less than 4 tons per year or CO PTE less than 29 tons per year)
- (12) Resource Recovery and Energy Conservation
- (13) Electric Utility Boilers

**Rule 1309.1 - Priority Reserve**

The Priority Reserve, which is funded from AQMD's offset accounts, provides a source of emission offsets for certain priority categories of sources. Except as noted below, these offsets

are provided by AQMD at no cost to the operator. The various categories of sources eligible to access the Priority Reserve pursuant to Rule 1309.1 as amended May 3, 2002, which is the currently operative version of the rule, are summarized below:

- (1) **Innovative Technology**  
Use of a technology that results in significantly lower emissions than would the use of BACT.
- (2) **Research Operations**  
Projects with the purpose of “investigation, [experimentation], or research to advance the state of knowledge or the state-of-the-art.” Limited to at most two years.
- (3) **Essential Public Service**  
Sources in the following categories located at facilities where all sources operate at or below BARCT levels
  - Publicly-owned sewage facilities;
  - Prisons;
  - Police facilities;
  - Fire fighting facilities;
  - Schools;
  - Hospitals;
  - Construction/operation of landfill gas control or processing facility;
  - Water delivery operations;
  - Public transit; and
- (4) **Electrical Generating Facilities (2000 through 2003)**  
Specified categories of facilities that generate electricity; meet BARCT for all sources; applicant has conducted a due diligence effort to acquire ERCs on the open market; applicant has applied for California Energy Commission certification or AQMD permit to construct during calendar years 2000, 2001, 2002, or 2003; and applicant pays the following fee for each pound of Priority Reserve offsets obtained (VOC and NOx not available for these sources):
  - \$25,000 per pound PM10 and day;
  - \$8,900 per pound SOx per day; and
  - \$12,000 per pound CO per day.